

REMARKS

This Amendment is submitted in response to the Office Action dated September 12, 2002. In the Office Action, the Patent Office objected to Claim 17, alleging that the claim has an informality. Further, the Patent Office rejected Claims 1-4, 6 and 8-14 under 35 U.S.C. §102(b) as being anticipated by *Foley et al.* (U.S. Patent No. 5,363,924). In addition, Claims 15, 18 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Taylor et al.* (U.S. Patent No. 4,725,068).

By the present Amendment, Applicant amended Claims 1, 10, 15 and 17. Applicant submits that the amended claims overcome the rejections made by the Patent Office and place the application in condition for allowance. Applicant also added Claims 26-29 and asserts that these claims are also allowable. Notice to that effect is requested.

Applicant notes with appreciation that the Patent Office indicated that Claims 5, 7, 16, 17 and 19 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Accordingly, Applicant added Claims 21-25, incorporating the limitations from Claim 5 into Claim 1; Claim 7 into Claim 1; Claim 16 into Claim 15; Claim 17 into Claim 15; and Claim 19 into Claim 15, respectively. Applicant, therefore, submits that Claim 21-25 are allowable. Notice to that effect is requested.

In response to the objection set forth in the Office Action, Claim 17 was amended to remove the informality alleged by the Patent Office. Accordingly, Applicant submits that the objection with respect to Claim 17 has been overcome. Notice to that effect is requested.

In the Office Action, Claims 1-4, 6 and 8-14 were rejected under 35 U.S.C. §102(b) as being anticipated by *Foley et al.* (U.S. Patent No. 5,363,924). In the Office Action, the Patent Office alleged:

Foley et al. discloses an apparatus for separating soil including a frame, a cylinder 60, a plurality of discs (not shown but inherently used in grain drills), a hitch (54) and a controller associated with the cylinder, wherein the controller is remote from the frame and controls movement of the frame. Concerning claims 3 & 4, member 48 is considered a pillar, with member 28 considered a column, and the inside surface of member 48 considered a liner. Concerning the claimed method steps, given the structure of *Foley et al.*, the claimed method steps would be inherently performed when using the device of *Foley et al.* Concerning claim 9, the wheels that the shown tires are mounted on are considered plugs.

By the present Amendment, Applicant amended independent Claims 1 and 10. Applicant submits that, for the reasons that follow, amended Claims 1 and 10 overcome the rejection by the Patent Office of Claims 1-4, 6 and 8-14 under 35 U.S.C. §102(b) as being anticipated by *Foley et al.*, and place the application in condition for allowance.

More specifically, independent Claim 1 was amended to require an apparatus for separating soil having a frame. Discs are

attached to the frame wherein the discs are aligned on and attached to an axle between the frame and the soil. The discs rotate upon contact with the soil. In addition, the discs are moved with the frame.

This feature is not disclosed by *Foley et al.* More specifically, *Foley et al.* do not disclose discs attached to the frame wherein the discs are aligned on and attached to an axle between the frame and the soil. By the admission of the Patent Office, *Foley et al.* do not even disclose the use of discs. Applicant asserts that, accordingly, the reference cannot be considered to disclose discs aligned on and attached to an axle between the frame and the soil.

Further, independent Claim 10 was amended to require a method for dividing soil wherein a frame has a first end and a second end. The frame is moved by remotely controlled movement of the cylinder. Movement of the first end toward the soil causes movement of the second end away from the soil.

This feature is also not disclosed by *Foley et al.* In *Foley et al.*, an entire body of a seeding unit is raised or lowered. As a result, movement of a first end of the seeding unit toward the soil also causes movement of a second end of the seeding unit toward the soil.

Under 35 U.S.C. §102(b), anticipation requires that a single reference disclose each and every element of Applicant's claimed

invention. *Akzo N.V. v. U.S. International Trade Commission*, 808 F.2d 1471, 1479, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986).

Moreover, anticipation is not shown even if the differences between the claims and the reference are "insubstantial" and one skilled in the art could supply the missing elements. *Structure Rubber Products Co. v. Park Rubber Co.*, 749 F.2d. 707, 716, 223 USPQ 1264, 1270 (Fed. Cir. 1984).

In the Office Action, Claims 15, 18 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Taylor et al.* The Patent Office alleged "*Taylor et al.* discloses an apparatus for separating soil including a frame, a pillar 12, a liner 62, and plates 56 that support column 54. *Taylor et al.* however lacks specifying that a plurality of discs are attached to the frame. *Taylor et al.* does disclose using the frame with a farming implement such as a plow or the like to work the soil (col. 2 lines 50-64)."

However, amended Claim 15 requires a frame having a front cross bar and a rear cross bar wherein the front cross bar and the rear cross bar are connected by a beam maintaining a fixed distance between the front cross bar and the rear cross bar. A first set of discs is attached to the front cross bar. In addition, a second set of discs is attached to the rear cross bar.

This feature is neither taught nor suggested by *Taylor et al.* More specifically, *Taylor et al.* merely disclose a frame. No

teaching or suggestion is present in *Taylor et al.* for a first set of discs attached to the frame at a front cross bar, and a second set of discs attached to the frame at a rear cross bar.

Moreover, one of ordinary skill in the art would never have been motivated to modify *Taylor et al.* in the manner suggested by the Patent Office in formulating the rejections under 35 U.S.C. §103(a).

It is submitted that the question under §103 is whether the totality of the art would collectively suggest the claimed invention to one of ordinary skill in this art. *In re Simon*, 461 F. 2d 1387, 174 USPQ 114 (CCPA 1972).

That elements, even distinguishing elements, are disclosed in the art is alone insufficient. It is common to find elements somewhere in the art. Moreover, most, if not all, elements perform their ordained and expected functions. The test is whether the invention as a whole, in light of all the teachings of the references in their entireties, would have been obvious to one of ordinary skill in the art at the time the invention was made. *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983).

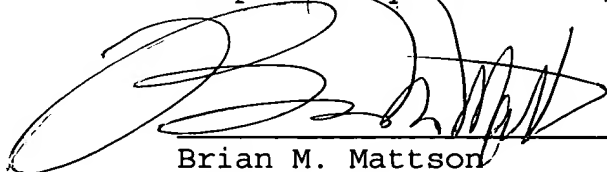
With the analysis of the deficiencies of *Taylor et al.*, no reason or suggestion in the evidence of record exists why one of ordinary skill in the art would have been led to modify *Taylor et al.* to obtain the claimed invention. Since the Patent Office has

failed to establish a *prima facie* case of obviousness, the rejection of Claims 15, 18 and 20 under 35 U.S.C. §103 is improper and should be withdrawn. Notice to that effect is requested.

Claims 2-9 depend from Claim 1; Claims 11-14 depend from Claim 10; and Claims 16-20 depend from Claim 15. These claims are further believed allowable over the references of record for the same reasons set forth with respect to their parent claims since each sets forth additional structural elements and novel steps of Applicant's hydraulic disc/harrow apparatus, system and method for using the same.

In view of the foregoing remarks and amendments, Applicant respectfully submits that all of the claims in the application are in allowable form and that the application is now in condition for allowance. If, however, any outstanding issues remain, Applicant urges the Patent Office to telephone Applicant's attorney so that the same may be resolved and the application expedited to issue. Applicant requests the Patent Office to indicate all claims as allowable and to pass the application to issue.

Respectfully submitted,

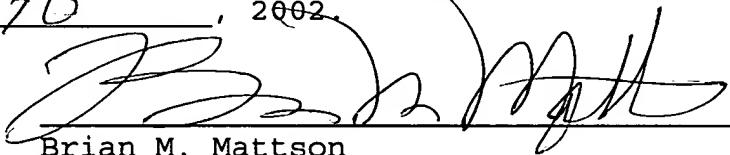


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CERTIFICATE OF MAILING

I hereby certify that this **Amendment** is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to Assistant Commissioner for Patents, Washington, D.C. 20231 on December 20, 2002.



Brian M. Mattson

VERSION WITH MARKS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend Claim 1 as follows:

1. An apparatus for separating soil, the apparatus comprising:

a frame;

an axle associated with the frame;

a cylinder associated with the frame;

[a plurality of] discs attached to the frame wherein the discs are aligned on and attached to the axle between the frame and the soil and further wherein the discs rotate upon contact with the soil [wherein the cylinder moves the frame]; and

a controller associated with the cylinder wherein the controller is remote from the frame and controls movement of the frame such that the discs are moved with the frame.

Please amend Claim 10 as follows:

10. A method for dividing soil, the method comprising the steps of:

providing a frame having a first end and a second end;

providing a cylinder associated with the frame;

connecting the frame to a [tractor] vehicle;

moving the frame by remotely controlling movement of the cylinder wherein movement of the first end toward the soil causes movement of the second end away from the soil; and

pulling the frame over the soil.

Please amend Claim 15 as follows:

15. An apparatus for separating soil, the apparatus comprising:
- a frame having a front cross bar and a rear cross bar wherein the front cross bar and the rear cross bar are connected by a beam maintaining a fixed distance between the front cross bar and the rear cross bar;
 - a [plurality of] first set of discs attached to the [frame] front cross bar;
 - a second set of discs attached to the rear cross bar;
 - a pillar associated with the frame wherein the pillar has a liner [attached to an] inside of the pillar of the frame; and
 - [a column inside the pillar] plates associated with the pillar wherein the plates retain the liner within the pillar [support the column].

Please amend Claim 17 as follows:

17. The apparatus of Claim 15 further comprising:
- a front cylinder on the frame wherein the front cylinder moves to adjust [the] an angle of the frame relative to the soil.